

A4 23. (Newly Added) The method as recited in claim 8, wherein said heating step includes applying an electric current across said contact areas.

REMARKS

The Office Action dated 02 January 2003 asserted a restriction requirement and an election of species; rejected claims 1-6 and 8-14 under 35 U.S.C. § 102 and withdrew claims 7 and 15-20 from consideration. Applicants traverse the restriction requirement and the election of species; cancel claim 7; amend claims 1, 8 and 15; and add new claims 21-23. Claims 1-6 and 8-23 remain. Applicants request that the Examiner reconsider and withdraw the restriction/election and the rejections. Formal Drawings and an Information Disclosure Statement accompany this Amendment as separate papers.

Election/Restriction

The Office Action asserted a restriction requirement between Invention I (process of making), claims 1-6 and 8-20, and Invention II (product made), claim 7.

A. Restriction Requirement

Applicants confirm the provisional election made during the telephone call between the Examiner and the undersigned on 16 December 2002 to prosecute Invention I, claims 1-6 and 8-20.

B. Election of Species

The Office Action also asserted an election of species requirement between Species I (method of repairing a part), claims 1-6 and 8-14, and Species II (method of repairing a rotating disk/drum rotor of a gas turbine engine), claims 15-20. The Office Action alleged that the Application contains no generic

claims. Applicants traverse both the election of species and the assertion that the Application contains no generic claims.

1. Requirements of Election of Species

A proper restriction requirement must meet two criteria. M.P.E.P. § 803. First, the inventions must be independent or distinct. *Id.* Second, a serious burden on the Examiner must exist. *Id.* Applicants assert that the Examiner has failed to satisfy either criterion.

Applicants believe that the Examiner has confused the varying scope of the claims as being different species. Claims of different scope are not independent inventions. Applicants request that the Examiner clarify which specific aspects of the claims demonstrate independent inventions. Applicants also request that the Examiner indicate where in the Figures to locate the different species. For at least this reason, the election of species requirement was improper and must be withdrawn.

Applicants also believe that no serious burden exists on the Examiner. In fact, the Examiner has not alleged any serious burden. “If the search and examination … can be made without serious burden, the examiner must examine it.” M.P.E.P. § 803 (emphasis added). Applicants request that the Examiner identify the serious burden that exists.

2. Generic Claims

The Examiner stated that no generic claim exists. Applicants disagree. Claims 1-6 and 8-14 are generic to both of the alleged species.

3. Affirmation of Provisional Election

In order to comply with 37 C.F.R § 1.143, Applicants confirm the provisional election made during the telephone call between the Examiner and the undersigned on 16 December 2002 to elect Species I. Applicants assert that claims 1-6 and 8-14 read on the elected species, and that claims 1-6 and 8-14 are generic.

Claim Rejections - 35 U.S.C. § 102

The Office Action rejected claims 1-14¹ as being anticipated by United States Patent Number 5,272,809 to Robertson *et al.* (“Robertson”). Applicants assert that the rejection was improper and must be withdrawn. Specifically, Robertson fails to disclose every feature in the claim. Independent claims 1 and 8 both recite, *inter alia*, the bonding of a “wrought” material to a “wrought” material. As stated by the Examiner on page five of the Office Action, “Robertson et al. teaches a technique for direct bonding cast and wrought materials.” For at least this reason, the rejection was improper and must be withdrawn. Applicants request that the Examiner reconsider and withdraw the rejection.

The Office Action rejected claims 1-14² as being anticipated by United States Patent Number 5,205,465 to Bogard *et al.* (“Bogard”). With respect to claims 1-6, independent claim 1 now recites “direct” heating of the contact areas. Bogard fails to disclose or to suggest such a feature. Rather, Bogard describes the use of an “induction coil 38” that is “located in proximity to the bonding surfaces.” In other words, Bogard indirectly heats the bonding surfaces because a “clearance is provided between the coil and the bond interface.” *See Figure 7.* None of the cited references overcome the shortcomings of Bogard. Applicants did not introduce new matter with this modification to claim 1. Support appears in the disclosure as originally filed, such as paragraph 55 of the specification.

¹ Since the Office Action withdrew claim 7 from consideration, Applicants presume the rejection list claims 1-6 and 8-14.

² Again, Applicants presume the Office Action meant to list claims 1-6 and 8-14 since the Examiner withdrew claim 7 from consideration.

With respect to claims 8-14, independent claim 8 now recites “resistance” heating of the contact areas. Bogard also fails to disclose or to suggest such a feature. Again, Bogard describes the use of an “induction coil 38” to heat the bonding surfaces. Since the coil remains a distance away, radiation heat transfer heats the bonding surfaces. None of the cited references overcome the shortcomings of Bogard. Applicants did not introduce new matter with this modification to claim 8. Paragraph 55 of the specification provides support for the modification. Applicants request that the Examiner reconsider and withdraw the rejection of claims 1-6 and 8-14.

Other Claim Amendments

Applicants amended claim 15 in the same manner as claim 1. Applicants made such amendment in an effort to promote further prosecution of this Application should the Examiner reconsider and withdraw the election of species requirement. As discussed above, Applicants traverse the election of species requirement.

Newly Added Claims

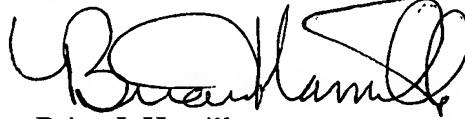
Applicants added new claims 21-23. Applicants did not introduce new matter. Support for the newly added claims appears in the original disclosure, such as paragraphs 50 and 55 of the specification.

Conclusion

In light of the foregoing, Applicants submit that the claims are now in condition for allowance. Applicants request that the Examiner reconsider and withdraw the restriction/election and the rejections. Applicants solicit the allowance of claims 1-6 and 8-23 at an early date.

Applicants authorized the Commissioner to charge the \$36 fee (2 x \$18 per claim in excess of 20) for the newly added claims under 37 C.F.R § 1.16 (c), along with any other fees due under 37 C.F.R §§ 1.16 or 17, or to credit any overpayments to **Deposit Account Number 21-0279.**

Respectfully submitted,



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Attachment "A" – Marked-Up Version Showing Changes

Claim 7 was cancelled.

Claims 1, 8 and 15 were amended as follows.

1. (Once Amended) A method of repairing a part, comprising the steps of:
providing a wrought part having a contact area and an anomaly that renders said part unsuitable;
providing a wrought material having a contact area;
directly heating said contact area of said material and said contact area of said part; and
pressing said contact area of said material against said contact area of said part;
wherein said material bonds to said part to render said part suitable.
8. (Once Amended) A method of making a rotating part of a gas turbine engine, comprising the steps of:
providing a rotating part made from a wrought material and having a contact area;
providing a piece of wrought material having a contact area;
resistance heating said contact area of said material and said contact area of said part; and
pressing said contact area of said material against said contact area of said part;
wherein said material bonds to said part.
15. (Once Amended) A method of repairing a rotating disk or drum rotor of a gas turbine engine, comprising the steps of:
providing a rotating disk or drum rotor made from a wrought material and having an arrangement of lugs and slots, at least one of said lugs or said slots having an anomaly thereon;
treating said anomaly to form a contact area;
providing a piece of wrought material having a contact area;

directly heating said contact area of said material and said contact area of said component;
pressing said contact area of said material against said contact area of said component
so that said material bonds to said component; and
treating said material to provide a desired shape to said disk or drum.

Claims 21-23 were added.